

# Installation and Instructions for stove model

# Uniflam Idro (25-34 kW)

#### **Dear Customer**

First of all we would like to thank you for the trust you have placed in us when purchasing one of the Calux products.

We have prepared this short manual for you in an attempt to make it as easy as possible for you to use our product.

We also advise you to show the specific technical information given on the following pages to those in charge of assembling the unit and making the product operational so that these operations can be carried out as correctly as possible.



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#### **Preamble**

- This user's manual has been edited by the manufacturer and has to be seen as part of the stove. The information it contains has to be consulted by not technically qualified persons as well as by technical service staff.
- The purpose of this manual is to give all necessary information to ensure proper use and installation of the heater.
- Following the indications provided, is a guarantee of a long life and safe operation of the product as well as a most economically use.
- □ Drawings and diagrams have illustrative purposes. Due to the fact of continuous development and improvement of the product, the manufacturer reserves the right to make necessary changes without notice.
- □ It is advisable to refer to this manual whenever it becomes necessary to work on the heater, so we suggest you keep it close to the place of the heater where it can easily be found and accessed.
- The manual is a document that belongs exclusively to CALUX Ltd and it is not allowed to be given to third parties without a written permission from the company that holds the rights to it.
- During planning, constructing and testing of the stoves the suggested criteria of the following norms have been adopted: UNI EN 13240 (Room-heaters Fired By Solid Fuel Requirements And Test Methods), UNI 9841 (wood burning heaters with forced fluid circulation Requirements and testing), UNI 10 412 (hot-water heating safety requirements), UNI 10683 (wood-burning heat generators installation requirements) and the Ministerial Decree of 01/12/1975 (containers of hot fluids under pressure) and subsequent updates.
- The manufacturer assumes no responsibility for any damage caused to persons or property due to the not respecting of the simple rules of installation and use, described in this manual.

#### **IMPORTANT:**

If a technical intervention at the heater is necessary, the water entrance has to be closed and the stove has to be disconnected from the electricity line. It may also be necessary to discharge the water from the stove.

It is necessary to test the product for a few days after the first start to make sure that the installation has been done correctly.

In pursuit of continuous improvement of its products and customer satisfaction, CALUX reserves the right to make any necessary changes without prior notice to raise the quality of their products.



#### 1. GURANTEE

Calux Srl. guarantees its products against any construction fault and any material defect, that has been confirmed by the company, throughout the Country.

- 2 years for all components
- 5 years for boilers and exchangers

Repairs and replacements under guarantee of parts or products may be made, at the discretion of Calux Srl., at the user's address or at its own plant, charging only carriage costs. Apart from this repair or replacement, the user may in no case make any claims for compensation for damages of any kind. The parts or products replaced under guarantee are the property of Calux Srl. and they must be returned to the latter at the user's expense. Technical assistance work not under guarantee involves the fixed call-out charge, costs of labour and materials required for repair according to the current spares price list.

## The following are not covered by guarantee:

- 1. Damage during transport (scratches, dents, etc.);
- 2. Damage due to incorrect installation of the product or to defects caused by insufficiency or unsuitability of the flue, wiring, water, power or drainage systems, or damage arising from environmental conditions due to climate, etc.;
- 3. Damage caused by carelessness, negligence, tampering, misuse, or repairs made by unauthorised personnel;
- 4. Parts made of ceramic, glass, brass, wood, handles, grips, gaskets, external pipes and any other fittings;
- 5. Parts treated in galvanising bath, painted parts subject to wear and tear from fire;
- 6. Deformities associated with the natural and physical features of the materials used (any tile discolouring);
- 7. Installation and regulation of the equipment;
- 8. Plant consultancy and convenience checks;
- 9. Maintenance, such as cleaning of filters, nozzles, burners, heat exchangers and circulators;
- 10. Anything that may be considered to be normal deterioration through use.

The equipment will be restored, within the time limits compatible with Calux Srl. organisational requirements, following the user's request to:

Repairs or replacements made under guarantee do not give rise to extensions or renewals of the said guarantee. Any fault of the equipment must be reported by registered letter with A.R. to Calux Srl. within two months from the date detected. No-one is authorised to alter the guarantee terms and conditions or to issue other verbal or written ones, apart from Calux Srl. The Company is not liable for any damage caused to persons or property from breakdown or forced suspension of use of the equipment.

Calux Srl. reserves the right, at any time and at its own final discretion, to make all the changes it considers useful or necessary to technical data and features of its own products without this having any effect on the above-mentioned general conditions.



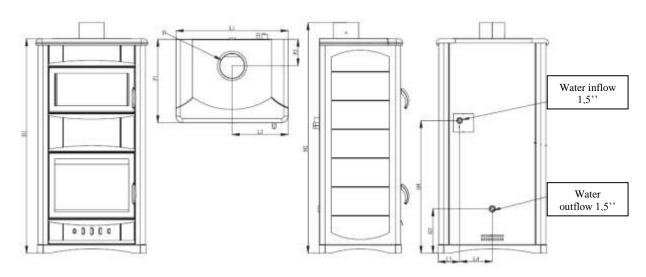
# 2. TECHNICAL FEATURES

# 2.1. Dimensions and Construction



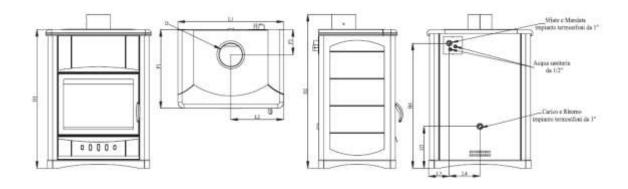


# Series Uniflam with Oven





# Series Uniflam without Oven



# **External Dimensions**

Dimensions of place requirement mm	25 KW		34 KW		
	UNI25	UNI25F	UNI34	UNI34F	
L1	580	580	780	780	
L2	290	290	390	390	
L3	150	150	150	150	
L4	160	160	225	225	
H1	1010	1500	1000	1500	
H2	1050	1540	1120	1600	
Н3	300	300	310	310	
H4	920	920	920	920	
P1	570	570	570	570	
P2	185	185	185	185	
D	150	150	180	180	

# Oven Dimensions and Diameter of Tubes

	Model	kg	Diameter Fume Exit	Dimensions of the Oven (mm)		
	Model			Н	L	Р
ΚW	UNI25	180	150	-	-	-
25	UNI25F	270	150	210	275	400
ΚW	UNI34	230	180	-	-	-
34	UNI34F	300	180	210	475	400



#### 2.2. Performance features

The following table shows the specifications of our products in accordance with the provisions of the standards (UNI EN 13240 and subsequent updates)

Main technical features				
Uniflam IDRO 25 kW -	(without oven)	Uniflam IDRO 34 kW –(without oven)		
Dimensions	1050 x 580 x 570 mm	Dimensions	1050 x 780 x 570 mm	
Global heating power	25 kW	Global heating power	34 kW	
Output heating power	19 kW	Output heating power	25.8 kW	
Heating power to the ambient	3 kW	Heating power to the ambient	4 kW	
Heating power to the water	16 kW	Heating power to the water	21.8 kW	
Boiler capacity	28 lt	Boiler capacity	38 lt	
Max operating water pressure	1.5 bar	Max operating water pressure	1.5 bar	
Max boiler temperature	75 °C	Max boiler temperature	75 °C	
Efficiency	76 %	Efficiency	76 %	
Average fuel consumption	7 kg/h	Average fuel consumption	8 kg/h	
Max heatable volume	450 m <sup>3</sup>	Max heatable volume	620 m <sup>3</sup>	
Boiler connection Ø	3/4"	Boiler connection Ø	3/4"	
Uniflam IDRO 25 kW	<ul><li>with oven)</li></ul>	Uniflam IDRO 34 kW -	· ( with oven)	
Dimensions	1540 x 580 x 570 mm	Dimensions	1600 x 780 x 570 mm	
Global heating power	25 kW	Global heating power	34 kW	
Output heating power	19 kW	Output heating power	25.8 kW	
Heating power to the ambient	3 kW	Heating power to the ambient	4 kW	
Heating power to the water	16 kW	Heating power to the water	21.8 kW	
Boiler capacity	28 lt	Boiler capacity	38 lt	
Max operating water pressure	1.5 bar	Max operating water pressure	1.5 bar	
Max boiler temperature	75 °C	Max boiler temperature	75 °C	
Efficiency	76 %	Efficiency	76 %	
Average fuel consumption	7 kg/h	Average fuel consumption	8 kg/h	
Oven max temperature	250 °C	Oven max temperature	250 °C	
Max heatable volume	450 m <sup>3</sup>	Max heatable volume	620 m <sup>3</sup>	
Boiler connection Ø	3/4"	Boiler connection Ø	3/4"	

# 3. INSTALLATION (see section with the installer)

ATTENTION: Please note that the installation of the product has to be done in conformity to all national laws and local rules and regulations.

Following some simple advices for the installation of our products in accordance to the standards (UNI 10683, UNI 10412, UNI 7129 and subsequent updates).

# 3.1 Installation of the product

Before installation it has to be checked if the floor is able to resist the weight if the heater, ready for use (thus also including the heat transfer fluid).

Make sure that the walls around the stove are not made flammable material and are not sensitive to heat.



Position the stove at least 80 cm from flammable material, if this is not possible, a thermal protection has to be done (UNI 7129, UNI 10683).

If the floor is made of flammable material (eg. parquet) it has to be used a plate of fireproof material under and around the oven. The measure in front of the oven has to be at least the height from the ground to the fire mouth + 30 cm, but not least then 60 cm. To the other sides it has to be the distance from the floor to the fire mouth + 20 cm, but not least then 40 cm.

Make sure to install the oven in a surrounding where its function is not affected negatively.

Place the heater on the floor and ensure the correct position by using a standard spirit level.

Make sure that the sum of the volumes of heated rooms directly from the product and heated them through hot water supply is not higher than calculated by us in the experimental phase.

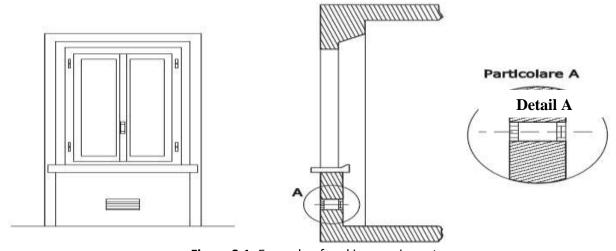
WARNING: Not proper calculated needs of warming can lead to malfunction of the product and dissatisfaction of the customer.

## **Indoor positioning**

Our product, both in the AIR and the IDRO version, is a heater that draws air that is necessary for its combustion process directly from the environment to be heated.

For this reason and for the even more important reason of safety for the people using it, the heater must be installed in a sufficiently ventilated place in order to guarantee a continuous flow of air at all times.

It is therefore essential to make air vents connected to the outside. See example in figure 2.1



**Figure 2.1:** Example of making an air vent.



### 2.2 Heating system

#### **CHIMNEY**

The proper installation of the fume exhaustion ensures a proper operation of our heating generators.

In normal use the chimney has to ensure then right depression (Draft) sufficient combustion air and flue gas exhaust (Smoke), this it is essential for a successful functioning of the stove. Following are suggestions we would like to give out of our checks and theoretical calculations:

Respect the right balance between cross-sectional and vertical tubes, in all cases it is not recommended to use chimneys with a height of less than 3 meters or more than 10 meters.

It is recommended to consult for the installation of the fireplace the regulations regarding the size of the flue (UNI 9615, UNI 7129 and subsequent updates).

WARNING: We do not recommend the use of rectangular sections with ratio is bigger than 1.5.

Install the pipe to seal the combustion products.

The proper isolation and insulation of the flue (by using steel wool or ceramic fiber to ensure high-temperature gas), especially in the outer segment exposed to the weather to avoid the risk of condensation.

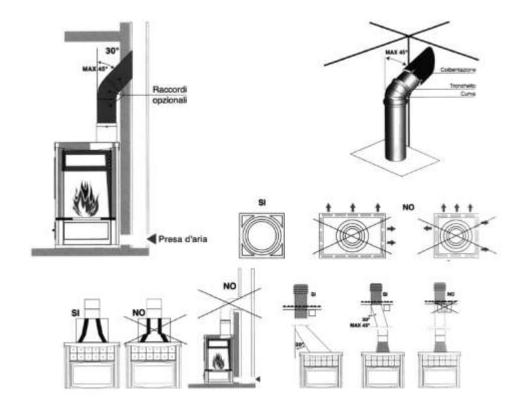
WARNING: The formation of condensation water inside the chimney can cause the absorption of ashes and the formation of deposits that can cause problems to the product (f.es. too much smoke).

Have constant section throughout its vertical development free from obstacles and bottlenecks. All angles have to be bigger than 45 ° to the vertical.

The construction of the chimney in stainless steel or aluminium, round and with a smooth inner surface.

WARNING: You may use our product in smoke systems with divided stoves only if this is in accordance with statutory regulations and laws at local, national and European level (Ministerial decree of 12.01.1975, UNI 7129).





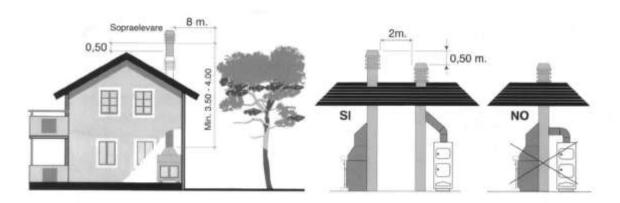
Another important element of the system is the chimney flue. This, according to the standards (UNI 10683, UNI 7129 and subsequent updates), should meet the following requirements:

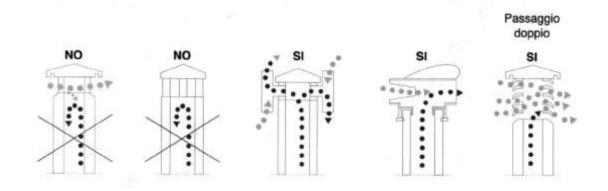
- Have the insight material equivalent to that of the tube.
- Have a fume exit of at least twice the size of the inner section of the chimney, to facilitate the release of smoke.
- Be impervious to rain, snow and foreign bodies and being save against wind, in terms that the fume exit is also ensured in the case of strong wind.

The chimney cap should be positioned at least 50 cm over the rooftop, to guarantee an efficient discharge of combustion into the atmosphere. Not respecting this minimum distance could lead to a reflow of the combustion and counterpression in the cinmney

Separate flues on a rooftop should have a minimum distance of at least 2m. The distance to other externals like buildings or trees should be at least 8m.







### **HEATING**

To be used in the right way our stoves need to be connected to a suitable plumbing.

WARNING: Do not use in any manner the stove without having it first connected to a suitable water supply. This operation beyond the termination of the guarantee can do irreparable damage to the product.

ATTENTION: Our heat generators can be connected only to systems with an open expansion tank. It is strictly forbidden to connect the stove to systems with a closed expansion tank.

For the construction of a thermal system with open expansion tank its considerable to follow the instructions provided by national rules. Following some indications given by UNI 10412 and subsequent updates:



- THE PLANT SHOULD ONLY BE LOADED BY NATURAL FALL FROM THE EXPANSION VESSEL AND ABSOLUTELY NEVER DIRECTLY FROM THE WATER SYSTEM (Water in the network has a higher pressure than our generator can take).

NB: THE MAXIMUM PRESSURE OF WORKING OF THE GENERATOR SHOULD NEVER EXCEED 1.5 BAR

The expansion vessel must consist of a covered container located above the highest point reached by the water in the system.

- Safety tubes, loading and venting must be protected from freezing in case this may occur
- The safety pipe needs to connect the highest part of the generator with the atmosphere and have no counterslopes, except in cases when it is intended to come out in the top of the tank.
- The inlet pipe needs to pool the lower part of the generator with the lower part of the expansion and does not have to have counterslopes that prevent the movement by gravity into the circuit (security and inlet pipes, generator, expansion vessel).

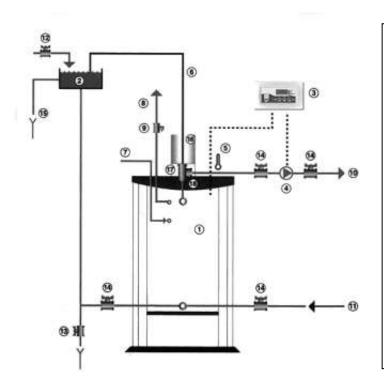
The vent tube communicating with the outside must have at least the same size of the safety pipe. As vent pipe can also be used the overflow pipe - which has at minimum the size of the security tube.

Where applicable it can be useful to install the heater on a lower level compared to the radiators to help finishing the thermal energy.

It may be convenient to use a water softening filter to reduce the formation of limestone in case of very hard water.



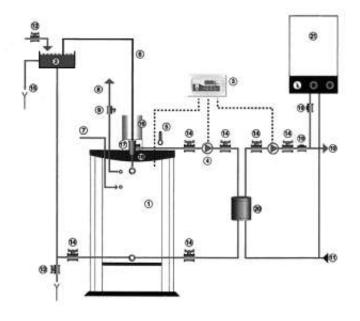
## SCHEDULE OF THE WATER CONNECTION:



- 1. Stove
- 2. Open expansion valve
- 3. Electronically central
- 4. Circulator
- 5. Immersion sonde
- 6. Security tube
- 7. Sanitary water ingress
- 8. Sanitary water exit
- 9. Valve of thermic outgo
- 10. Outgo of heating water
- 11. Backflew of hot water
- 12. Tube to load the product
- 13. Tube to unload the product
- 14. Valve of sfere
- 15. Tube in case of overload
- 16. Fume tube in inox
- 17. Cap
- 18. Collector

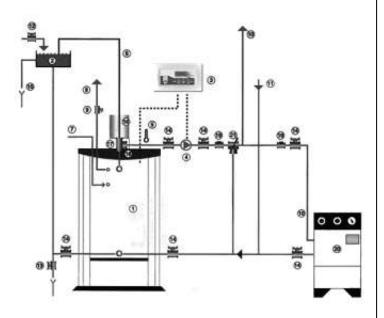


### ISTALLATION WITH STOVE AND WALL BOILER



- 1. Stove
- 2. Open expansion valve
- 3. Electronically central
- 4. Circulator
- 5. Immersion sonde
- 6. Security tube
- 7. Sanitary water ingress
- 8. Sanitary water exit
- 9. Valve of thermic outgo
- 10. Outgo of heating water
- 11. Backflew of hot water
- 12. Tube to load the product
- 13. Tube to unload the product
- 14. Valve of sfere
- 15. Tube in case of overload
- 16. Fume tube in inox
- 17. Cap
- 18. Collector
- 19. Valve of retake
- 20. Changer
- 21. Wall boiler

## ISTALLATION WITH STOVE AND CENTRAL HEATING BOILER



- 1. Stove
- 2. Open expansion valve
- 3. Electronically central
- 4. Circulator
- 5. Immersion sonde
- 6. Security tube
- 7. Sanitary water ingress
- 8. Sanitary water exit
- 9. Valve of thermic outgo
- 10. Outgo of heating water
- 11. Backflew of hot water
- 12. Tube to load the product
- 13. Tube to unload the product
- 14. Valve of sfere
- 15. Tube in case of overload
- 16. Fume tube in inox
- 17. Cap
- 18. Collector
- 19. Valve of retake
- 20. Basement boiler
- 21. Three way valve



CAUTION: The drain valve should be positioned at the lowest point of the water circuit.

IMPORTANT NOTICE: Please note that all pictures shown in the manual are provided free of charge and just as indication. Due to this, Calux S.r.l. does not assume any responsibility.

# 3.3 Installation instructions for the aesthetical part of the product (UNIFLAM Series)

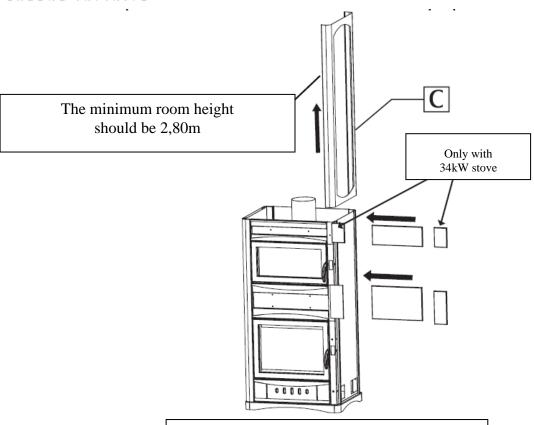
The UNIFLAM stove comes in two separate packages, one containing the proproduct and the other containing the ceramic coating. For the assembly of the aesthetics a screw driver or other tool to unscrew crossed head screws is needed.

WARNING: The following pictures showing the operation of fitting of the ceramics show stove model UNIFLAM 34 KW with oven. The given instructions are applicable for the entire range of UNIFLAM stoves. For the size and composition of the ceramics kit, refer to the summary table at the end of this paragraph.

- 1. To assemble the front ceramics you have to remove the right panel of the stove, as shown in figure 3.5.
- 2. Place the ceramics over the heating chamber on front of the oven.

  Place the larger piece in the centre as shown in Figure 3.5.
- Place the ceramics also over the oven.
   Place the larger piece in the centre as shown in Figure 3.5.
- 4. Replace the right panel on the stove.





- Figure 3.5: Front ceramics positioning
- 5. For the positioning of the ceramics the hand bar has to be removed
- 6. Open the ash tray, unscrew the screws and remove the handle as shown in Figure 3.6.

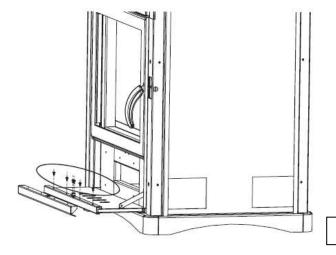
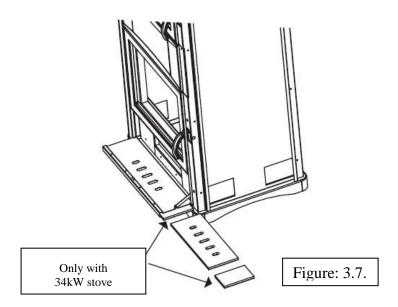


Figure: 3.6.



- 7. Open the pottery ash tray. Place the larger piece in the centre, see Figure 3.7.
- 8. Replace the hand bar and re-fix it.



9. Place the side ceramics on the left and right side of the stove, take care to position the smaller ones as last ones, as shown in Figure 3.8.

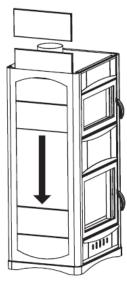
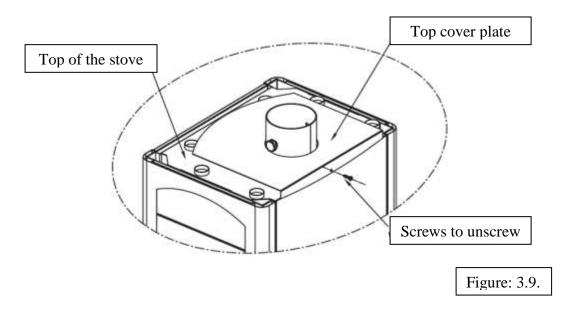


Figure: 3.8.

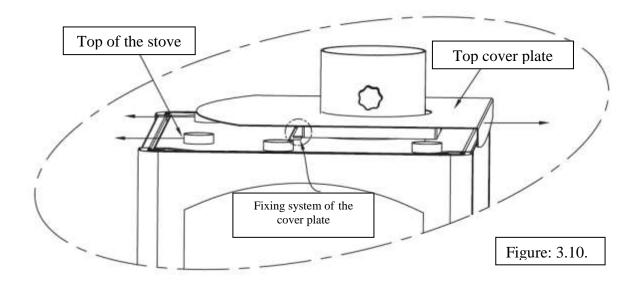


CAUTION: To place the ceramics at the top of the stove, the cover plate has to be moved.

10. Unscrew the screw on the backside and open cover plate Figure 3.9.

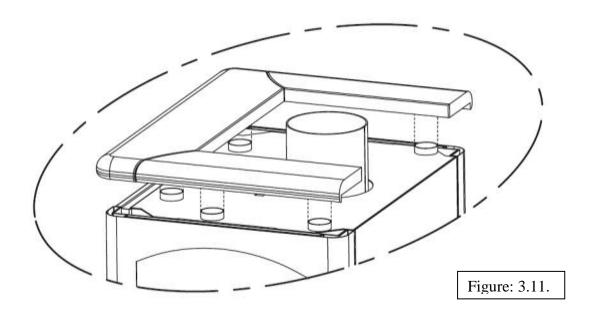


11. Push the top cover in the front direction as indicated in Figure 3.10 with the effect that the top can be raised up sufficiently to position the ceramics.

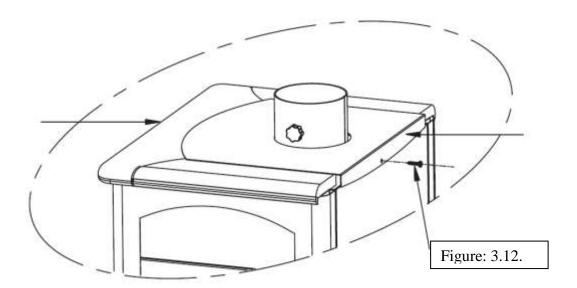




12. Place the ceramics on the upper circle as shown in Figure 3.11.



13. To replace the cover plate is necessary to reposition the top by a small force in the direction shown in Figure 3.12 to ensure the correct coupling between the two components. After making sure that the cover is integral with the top, it can be fixed with the screw again.

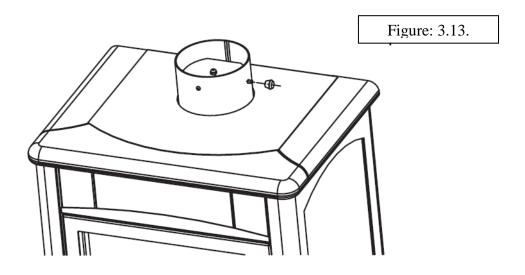




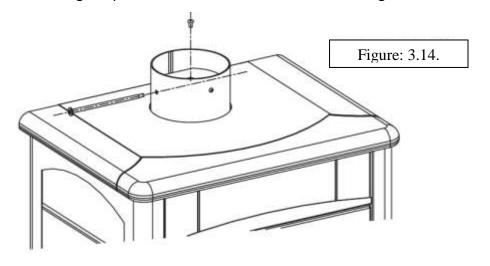
## **SMOKE VALVE REMOVAL**

If it is necessary to remove the fume valve in order to simplify the ascetical assembly just described or to perform any other service, following some instructions:

1. Remove first of all the knob for adjustment of the gas valve; figure 3.13.



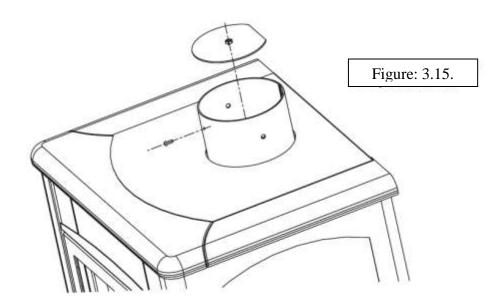
2. Remove the screw holding the pin and remove it from its location see Figure 3.14.





WARNING: Be careful during this operation not to drop the valve into the stove

3. Removed the valve, it is necessary to remove the clamp screw of the fume tube as shown in Figure 3.15.





#### 4. USE OF THE PRODUCT

ATTENTION: Please note that the usage of the product has to be in agreement with all national and local rules and regulations.

CAUTION: Position the stove at least 80 cm away from flammable materials, if this distance cannot be respected it is considerable to make use of a thermal protection (UNI 7129, UNI 10683).

# 4.1 Before start: checking of proper operation

Once the installation of the heater is completed in the right place with a correct connection to the water supply and a proper connection to the evacuation of smoke (flue), the stove can be heated for the first time.

CAUTION: It is necessary that all rules of installation described in this manual and all local laws and rules, including those that refer to national and European standards, are respected when the product is installed.

For the verification if the product has been installed in correct way the following operation can be proceeded together with an installer:

- 1. Fill up the plumbing of the heater by the use of the natural water flow from the expansion tank.
- 2. Leave the radiator vents fully open during the loading phase so that air bubbles formed in the plant exit not to have a negative effect on the heat exchange or create noises.
- 3. Check that the circulator pump functions and set the starting temperature in the thermostat (50-60°C generally, unless specific needs).
- 4. Carefully prepare a bed of small well-dried wood and do not put excessive amounts in order not to cause an overheating of the stove.



- 5. Leave open the air flow windows as long as needed to increase the flame.
- 6. To inflame the wood one can use paper or special sticks for inflammation.
- 7. Now proceed with the regulation of the air windows in terms to give just as much air as needed to feed the flame.

WARNING: During the first times of heating avoid too strong flames in order to give the metal frame the epossibility to stabilize itself without suffering excessive expansion.

WARNING: the first starts of the stove could be accompanied by the leakage of smoke and smells from the painted parts of the product. These small inconveniences are inherent to the process of chemical stabilization of the special colours used. Therefore in this moment it is necessary to ventilate the room well.

Our stoves are designed to burn only wood.

WARNING: Do not feed our heat generator with any liquid or solid fuel different from wood. Please note that the misuse of the product can cause malfunctioning that may causes damage to the product or also injuries to persons.

WARNING: Any failure of following the instructions for installation and operation listed in this manual, may result in the loss of warranty.

The burning hours reported in the tables of the main technical features of our stoves are indicative. It is clear that an increased energy demand implies also a higher consumption of fuel.

WARNING: Although the surface temperatures reached by our products are not very high, one should pay attention touching the surface during the functioning of the stove.



#### 4.2 USING THE OVEN

The oven of the UNIFLAM stoves works exclusively through the action of smoke produced by burning wood. These fumes get in contact with the outward part of the ovenin terms to create the high temperatures necessary for cooking food (200 - 250°C). This operation makes it necessary to conduct two more operations, one after purchasing the product and the other during the use of it:

- The correct sizing of the product in respect to the environment where it has to be placed. Improper sizing of the pro product can lead to inefficient operation of the oven.

- To bring the oven to the temperature needed to cook food, keep the flame in the combustion chamber lively throughout the whole period of cooking. For this purpose it is useful to use fine, dry wood.

WARNING: The performance of the oven can only be obtained after a few cycles of use of the product.

**CONDUCT OF FIRE** 

**LOADING** 

Proceed as described under point 4.1 also for the subsequent starts. Of course cannot be performed the operations described in the first two points, so go directly to the next.

ATTENTION: Please note that it is absolutely forbidden to use flammable liquids to facilitate the initiation of the flame inside the combustion chamber.

TENURE



When the combustion starts, you can adjust the flow of combustion air by adjusting the air intake window of the ashtray and adjust the draft through the knob.

It is also possible to operate the valve to regulate the smoke in the chimney.

CAUTION: The gas valve for UNIFLAM series models has been designed in order with EN 13240 and its subsequent updates, so it has a minimum of free cross section to ensure the safe discharge of flue gases.

CAUTION: Do not forget to activate the switch (position ON)

It is considerable to optimize the combustion process, to avoid overloading of the combustion chamber and at the same time to position the fuel load in a way not to go over the wood rack and keep space between the wood and the door.

WARNING: Failure in following these rules, as well as an effective management of the product could result in a malfunction or damage of the painting of the doors.

The heater has to work, except in the ignition phase and during load, with the door closed to prevent the outflow of fumes.

Leaving the door open causes that too much air enters in the heater and the efficiency of combustion will be influenced negatively. The chemical process of combustion would be disturbed and therefore cause an increased consumption and overheat.

In particular it has to be underlined again, that during the first times of firing it is highly considerable to keep a medium flame and ventilate the room well in order to evaporate the smells caused by some paintings of the new materials.

CAUTION: It is absolutely not considered to burn treated wood (painted, lacquered, or other) or to turn on the fire by using flammable liquids and / or detonating materials (petrol, kerosene, diesel, alcohol, etc.).



WARNING: Do not turn off the fire with water: the violent heat stress could do serious damage to parts of the boiler and destroy the fireplace.

We recommend using wood that has been dried as much as possible. Fresh wood (rich in moisture) and resin, besides having a lower calorific value and therefore burning worse, causes the creation of deposits on the walls of the boiler. Excessive deposits on the walls of the boiler can cause the formation of smoke and also reduce the sections of passage for the smoke and hereby again reduce the efficiency of the stove.

The use of dense wood species such as beech, hornbeam, oak and locust trees is considered. To avoid excessive consumption, the wood of low-density species like willow or alder is not considerable. However, parts of the last named, in small size and well dried can be used in the initial stage of fireing.

CAUTION: Be careful when coming in contact with the product during its normal operation because its exterior walls can become hot. Use the glove provided, to conduct the fire.

WARNING: Do not go close or touch the combustion chamber with flammable materials

WARNING: The stove does not have to be modified in any matter.

WARNING: Not technically authorized interventions and the use of parts not originally and authorized by the producer will cause to annulation of the guarantee and can also cause malfunctions and great risk to people in direct contact with the product.



#### **5. MAINTENANCE**

This section of the manual contains technical information needed to carry out the routine maintenance and repairs.

CAUTION: Before starting any maintenance it is important to make sure that the stove is turned off, the heater is disconnected from electricity and the water valve is closed. If the surgery requires it, the water has to be drained from the plant.

The frequency of cleaning of the fume flue and chimney depends on the type of wood used and the frequency of usage of the stove. It should not be done less than once a year.

WARNING: The deposits of carbon are easily flammable under high temperature.

CAUTION: If the chimney fire is on fire follow the following advice:

- 1. Do not try to switch off the fire by introducing water from the chimney; the ingress of water into the heater could harm it due to the violent heat shock.
- 2. Sprinkle a little water on the wood in the fireplace, but without wetting the refractory.
- 3. Call the fire department!
- 4. Prevent the access of air from the bottom of the barrel, close the valve.
- 5. Move away furniture and other objects from the walls close to the chimney.

Proceed with the same frequency the cleaning of the smoke passage using a scraper to remove deposits in tubes and on the water containing parts of the stove.

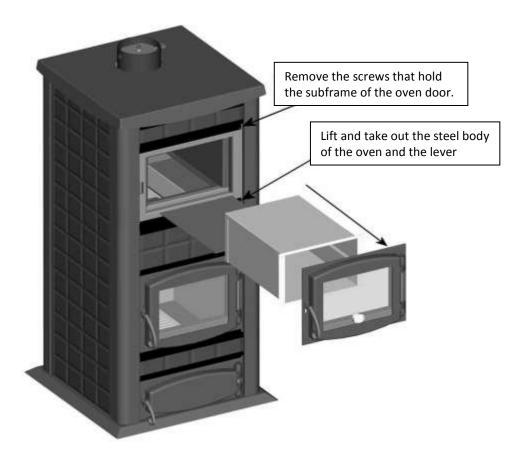
INSTRUCTIONS FOR CLEANING THE STOVE.



The removal of deposits of combustion fumes accumulated oround the oven body can easily be cleaned by extracting the oven.

## Extraction of the oven (see figure)

- Remove the screws that hold the subframe of the oven door;
- Lift and take out the steel body of the oven;
- Use a lever to extract the metal sheet on which the body of the oven is positioned and that diverts it to the smoke exhaust
- Clean the stove;
- Replace the metal sheet in the stove;
- Finally tighten the screws of the subframe of the oven door.



You can assist the manual cleaning by the help of special products to remove combustion deposits.



CAUTION: If usind the stove continuously during the heating season, it is recommended to clean the stove regularly a several times during the season to avoid the phenomena of excessive smoke.

CAUTION: It is NOT considerable to embed our stoves. The the case that it is not avoidable, keep at least 30cm space on top of the stove to allow access for inspection and maintenance from the upper part of the heater.

Thoroughly clean the interior surfaces of the boiler in order to maintain good heat exchange efficiency, using a scraper or wire brush. It would be appropriate to do so even at the end of the winter season.

CAUTION: Keeping clean and smoke exhaust channels and the inside of the fireplace is essential to prevent the emergence of dangerous obstructions of the draft.

Check, especially after long periods of inactivity, the water level in the expansion tank and eventually restore the optimal level of functioning before you start the ignition phase.

Make sure the pump is working properly (especially after long periods of break). In the case that the impeller of the same should be blocked, unscrew the cap on the pump and provide, if possible, the manual release.

WARNING: Move the cap of the pump only after disconnecting the generator from the main power supply.

Daily cleaning: remove all the ashes from the combustion basket and the ash tray to keep always an efficient ventilation.

It may be necessary to clean the door window (resistant to high temperatures) from time to time.





WARNING: Proceed to clean the glass only if it is completely cold and do not use abrasives (Use specific products available on the market). The cleaning of the iron part has to be done with non-aggressive products to avoid any damage to the paint.

WARNING: The Company is not responsible for any malfunctions of the stove caused by poor or missing maintenance.

CAUTION: Remember that maintenance is not covered by warranty as specified in the appropriate certificate.

## 5.1 Problems and Solutions

This section of the manual has been designed to give the user the change to a quick and simple intervention in the case of inconveniences that can occur.

The table below summarizes the actions to take when there is a problem: the left column shows the problem, in the right there is described the action to undertake to solve the problem.

PROBLEM	WHAT TO DO
No electrical energy or acoustic signal (water in the boiler	- Open the door
close to 100°C)	- Do not put further wood
	- Try to distance the wood pieces from each other
	- In case the stove is installed to produce hot
	sanitary water, open a water tube to slow down
	the water temperature in the boiler
No tension on the command	- Make sure that all wires are in order



The circulator does not work	- Make sure all electrical connections are in order
	- Make sure that the circulator is not blocked. In
	case it is, unblock it manually by opening the
	valve
	- Make sure that the measure of temperature is
	positioned in the correct way and works
	correctly
No hot water arrives at the radiators	- Make sure that the valves are open and that
	there is no water in the system
	- Make sure that all water connections are installed
	in the right way
	- Make sure that the circulator is working in the
	correct way
Excessive fume production	- Make sure that no excessive deposit blocks tubes
	and the stove
	- Make sure that the chimney is in order
	- Make sure that the valve works
Excessive deposit if combustion waste	- Make sure that the wood used is dry enough
	- Do not use too big pieces
	- Do not burn treated wood and other materials
	than wood
The door window becomes excessively dirty	- Use better quality of wood (smaller pieces, better
	dried)
	- Make sure that the fume tube is free of deposits
Insufficient sanitary water	- Raise up the starting water temperature of the
	circulator
	- Keep the flame lively
	- Check problems of the hydraulic system
The oven does not heat up	- Keep the flame continuously
	- Use small pieces of wood to keep the flame
	lively
	- Optimal service is only done after some circles
	of functioning